

by floods of less severe but more frequent occurrence such as every five, 25, or 50 years. Floodlands are not suited to urban development because of flood hazards, high water tables, and inadequate soils. These areas are, however, generally suitable locations for valuable park and open space areas. Floodlands also provide storage for floodwaters and thereby decrease downstream flood discharges and stages.

Floodlands in Waukesha County, delineated by the Southeastern Wisconsin Regional Planning Commission, the Federal Emergency Management Agency, and the Wisconsin Department of Natural Resources, are shown on Map 23. The 100-year flood recurrence interval flood hazard area encompasses about 72 square miles, not including nearly 24 square miles of surface water in lakes and streams, or about 13 percent of the County's total land area. In 1990, a total of about 13.7 square miles, or about 19 percent, of these floodlands were located within state, county, or local public park and open space land.

WETLANDS

Wetlands are defined by the Regional Planning Commission as "areas that are inundated or saturated by surface water or groundwater at a frequency, and with a duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."⁸ Wetlands perform an important set of natural functions which make them particularly valuable resources lending to overall environmental health and diversity.

Wetlands contribute to the maintenance of good water quality, except during unusual periods of high runoff following prolonged drought, by serving as traps which retain nutrients and sediments, thereby preventing them from reaching streams and lakes. They act to retain water during dry periods and hold it during flooding events, thus keeping the water table high and relatively stable. They provide essential breeding, nesting, resting, and feeding

grounds and predator escape cover for many forms of fish and wildlife. These attributes have the net effect of improving general environmental health; providing recreational, research, and educational opportunities; maintaining opportunities for hunting and fishing; and adding to the aesthetics of an area.

Wetlands pose severe limitations for urban development. In general, these limitations are related to the high water table, and the high compressibility and instability, low bearing capacity, and high shrink-swell potential of wetland soils. These limitations may result in flooding, wet basements, unstable foundations, failing pavements, and failing sewer and water lines. Moreover, there are significant and costly onsite preparation and maintenance costs associated with the development of wetland soils, particularly in connection with roads, foundations, and public utilities.

Wetlands cover a combined area of 81 square miles in Waukesha County, or about 14 percent of the total area of the County. As indicated on Map 24, wetlands are scattered throughout the County. Large concentrations of wetland areas occur in the Vernon Marsh, along Scuppernong Creek and the Scuppernong River in the extreme western part of the County, at the headwaters of the Fox River in Menomonee Falls and City and Town of Brookfield, and surrounding Big Muskego Lake.

WOODLANDS

Woodlands have both economic and ecological value and can serve a variety of uses providing multiple benefits. Located primarily on ridges and slopes and along streams and lakeshores, woodlands provide an attractive natural resource, accentuating the beauty of the lakes, streams, and the topography of the County. In addition to contributing to clean air and water, woodlands contribute to the maintenance of a diversity of plant and animal life and provide for important recreational opportunities. Under balanced use and sustained yield management, woodlands can, in many cases, serve scenic, wildlife, educational, recreational, environmental protection, and forest production benefits simultaneously.

Waukesha County woodlands cover a combined area of 46 square miles, or 8 percent of the County's total land area. As indicated on Map 24, these woodlands exist in large contiguous areas along the Kettle

⁸For a descriptive analysis of the several definitions of wetlands used by Federal and State regulatory agencies, see Appendix A.